

### **ABSTRACT**

Systems and methods for creating assemblies are described. One method described comprises providing a first element at a first temperature, providing a second element at a second temperature lower than the first temperature, coupling the first and second elements to create an assembly, and changing the first temperature to a third temperature, thereby preloading and interlocking the assembly. The first element comprises a first dimension at the first temperature. The second element comprises a second dimension lesser than the first dimension at the second temperature. The first element comprises a third dimension at the third temperature lesser than the first dimension.